Integrated Urban Water Management – Where to for capacity building?

Gestion intégrée de l'eau en milieu urbain – Quelle évolution des compétences ?

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RÉSUMÉ

La nature pluridisciplinaire de la gestion intégrée de l'eau présente d'importants défis pour tous les acteurs de l'eau en milieu urbain. Afin d'arriver à la mise en œuvre d'une gestion intégrée des eaux, les lacunes des capacités actuelles doivent être identifiées, comprises et abordées. En 2014/15 Clearwater, une organisation australienne de renforcement des capacités opérant dans la gestion intégrée des eaux urbaines, a entrepris une étude approfondie pour identifier les lacunes de capacité qui font obstacle à l'adoption et la mise en œuvre d'une gestion intégrée de l'eau.
Au total, 177 participants ont été engagés par le biais d'entretiens en face-à-face, de groupes de discussion et d'un sondage en ligne. Les résultats suggèrent qu'il est nécessaire d'orienter le renforcement des capacités vers :

- le développement des compétences 'douces' (par exemple l'engagement ou la gestion du changement)
- les compétences utilisées à l'intérieur et entre les organisations (par exemple les procédés ou les réseaux professionnels)
- les acteurs qui ont un pouvoir décisionnel
- d'autres secteurs (autre que le secteur de l'eau – la planification urbaine par exemple).

ABSTRACT

The multi-disciplinary nature of integrated urban? water management (IUWM) and the number of stakeholders involved in urban and water planning present significant challenges to the water industry. For organisations and individuals to embrace and successfully implement IUWM, current capacity gaps need to be identified, understood and addressed. In 2014/15 Clearwater, a leading Australian capacity building organisation, undertook an extensive study to identify IUWM capacity needs in the water industry.
A total of 177 participants were engaged through face-to-face interviews, focus groups and an online survey. Results show that there is a need for capacity building to shift its focus:

- To the development of 'soft' skills (e.g. engagement, change management, etc.)
- To competencies and aptitudes used within and between organisations (e.g. processes, networks, etc.)
- To target stakeholders with decision-making responsibilities
- To include audiences from other sectors (than the water sector), such as urban planning.

KEYWORDS

Capacity building, integrated water management, needs analysis

1 INTRODUCTION

The multi-disciplinary nature of integrated urban water management (IUWM) and the number of stakeholders involved in urban and water planning present significant challenges to the water industry. It is well understood that, for organisations and individuals to embrace and successfully implement IUWM, current capacity gaps need to be identified, understood and addressed appropriately (Brown et al., 2006; Clearwater et al., 2011; Jennings 2012; Melbourne Water, 2013; Morrison et al., 2010). In 2014/15 Clearwater, a leading capacity building organisation, undertook an extensive study to identify IUWM capacity needs in the Victorian water industry.

2 METHODS

2.1 Data collection

The main data collection process involved direct engagement of 177 stakeholders through face-to-face interviews, focus groups and an online survey (Table 1). Participants included representatives from peak bodies as well as industry practitioners. This data collection process was complimented by a number of existing data sets such as reports and desktop studies, which were used to inform the choice of thematic prompts for interviews and focus groups, and verify the data collected by direct engagement and provide insights into the findings.

Table 1 : Study participants (in no particular order)

	TOTAL	**Consultants**	**Water Authorities**	**Local Government**	**Developers**	**Contractors**	**State government**	**Education and Research Institutions**	**Others *(e.g. community, Not-for-profit, training etc.)***	**Victoria**
Interviews	**46**	2	9 + 1 CMA	12	12	5	2	2	1	100 %
Focus groups	**15**	3	-	4	6	-	2	-	-	100 %
Survey	**116**	15	30	30	2	1	13	9	4 (+ 12 unknown)	83%
TOTAL	**177**	20	40	46	20	6	17	11	17	

2.2 Data analysis

A capacity assessment framework, adapted from Brown et al (2006) and Van de Meene and Brown (2007) – refer to Figure 1 – was used to sort the data and determine the IUWM capacity gaps and needs of the industry. The framework is grounded in international best practice and is consistent with capacity building research in Australia.

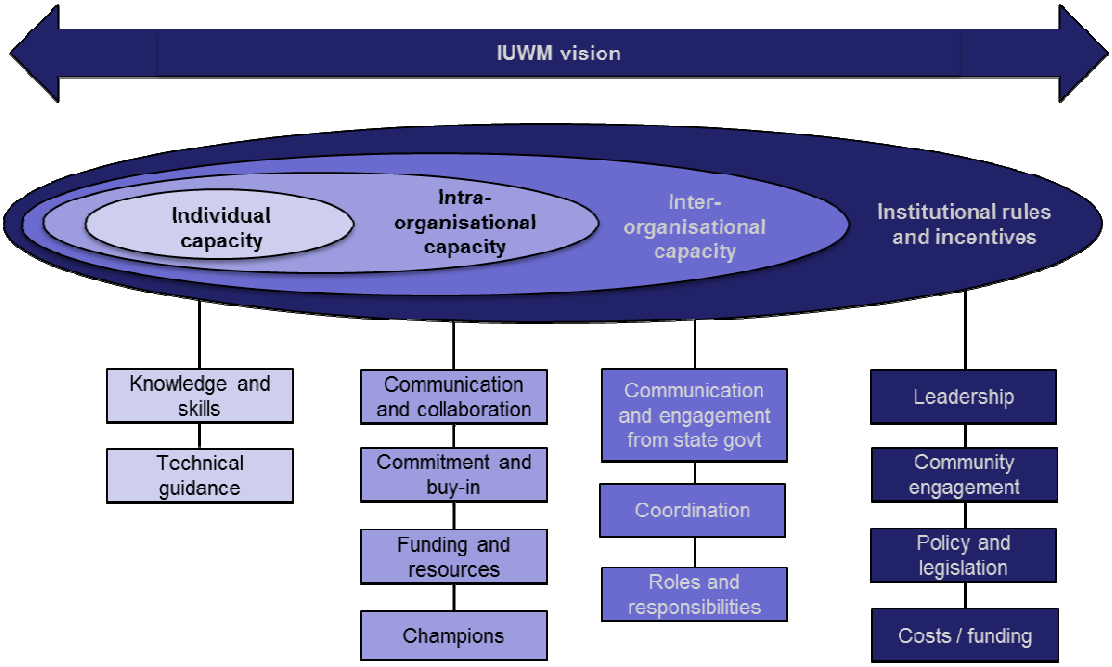

Figure 1 : Summary of IUWM capacity gaps / needs raised by stakeholders

Importantly, the framework goes beyond an assessment of (a) individual capacity (including a person's skills and knowledge), to include three other capacity spheres: (b) intra-organisational capacity (referring to the capacity within an organisation, e.g. efficient processes within local councils to support the uptake of IUWM), (c) inter-organisational capacity (referring to skills demonstrated between organisations, such as cooperation between stakeholder groups), and (d) institutional rules and incentives (referring to the wider framework which includes governance and legislation for improved uptake of IUWM).

The multi-disciplinary nature of integrated water management (IUWM) and the number of stakeholders involved in urban and water planning present significant challenges to the current water industry. For organisations and individuals to embrace and successfully implement IUWM, current capacity gaps need to be identified, understood and addressed appropriately. In 2014/15 Clearwater, a leading capacity building organisation, undertook an extensive study to identify IUWM capacity needs in the Victorian water industry.

3 RESULTS

Key insights from the engagement study included (refer to Figure 1 and Figure 2):

- Issues of leadership, direction and linkages between industry players were dominant for a majority of respondents. Areas for improvement include clear roles and responsibilities, and better communication and coordination between organisations involved in IUWM.
- Most participants had difficulties understanding the real value and benefits of IUWM to their organisation. Linked to this were concerns about how to apply IUWM in a resource constrained environment.
- Officer level respondents in particular reported a lack of organisational commitment - often due to issues with internal communication and collaboration across departments or a lack of senior level support.

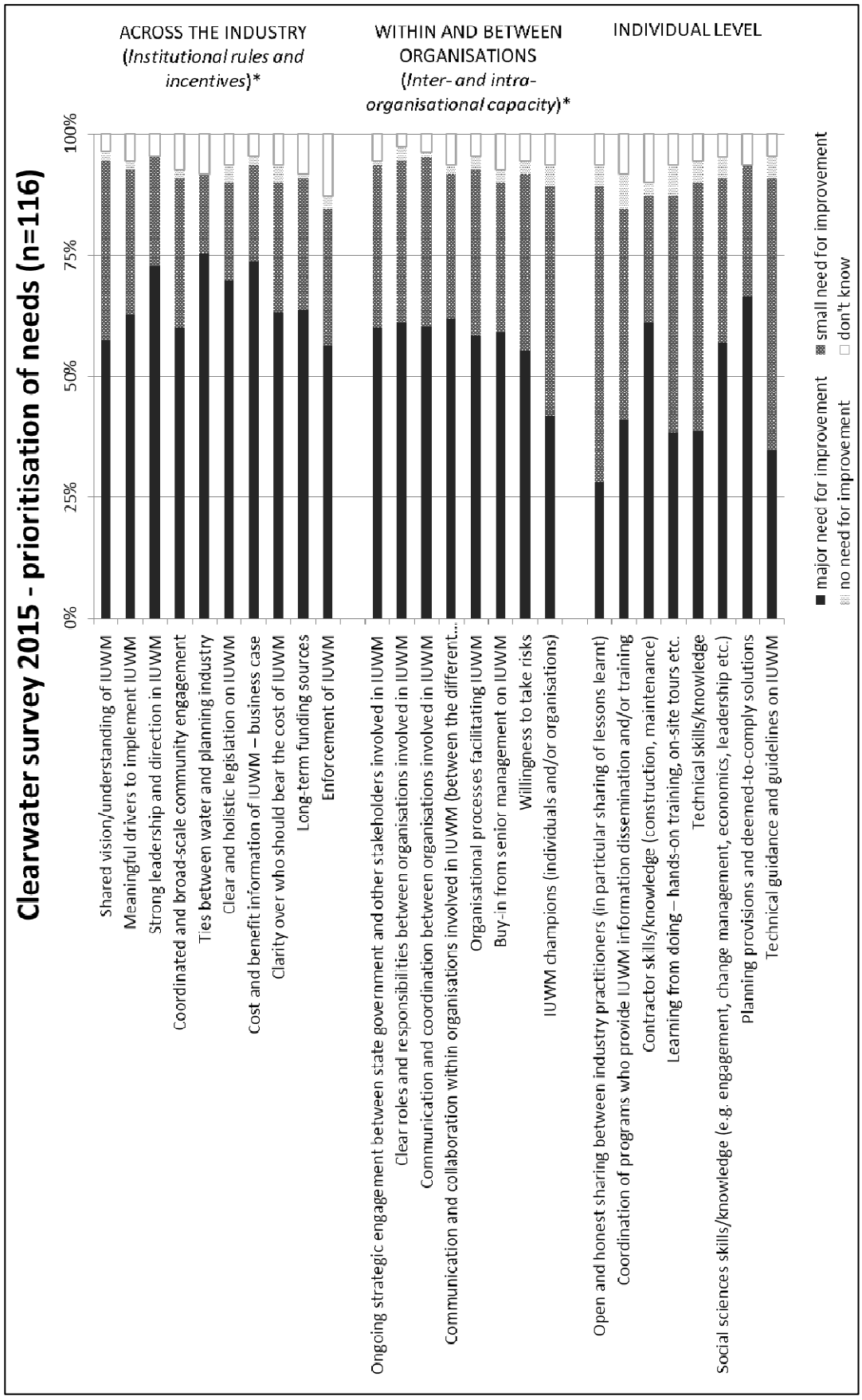

Figure 2 Barriers and challenges to IUWM implementation – prioritisation of needs (Clearwater survey 2015)
* For the purposes of the survey, the capacity building model was simplified.

- Whilst overall, the need for an improvement in individual capacity was considered smallest, many participants noted that IUWM requires a broader skill set and knowledge base. This means going beyond purely technical skills to include (1) skills such as systems thinking (rather than components-thinking) and intergenerational (or adaptive) thinking, (2) being able to influence within and between organisations and (3) build a strong business case for IUWM projects and approaches.

4 OUTCOMES

This project identified a wide range of capacity building needs in the area of IUWM. In general, the results showed that IUWM is an engagement and investment problem, rather than a technical problem. And because it is a systemic problem, the solution lies in systemic thinking – an ability to bridge organisations, to bring different practices and cultures together and broker dialogue and partnerships across silos.

For capacity building programs, which have traditionally focussed on addressing individual (technical) capacity with lower level officers in the water sector, this means:

- Efforts in individual capacity should concentrate on 'soft' rather than purely technical skills;
- There is a need for a greater focus on organisational strengthening activities (targeting intra- and inter-organisational capacity);
- There is potential in shifting/expanding in target groups from (1) lower level technical officers to middle/higher management officers with decision-making responsibility, (2) converted to unconverted audiences, including audiences from other sectors than the water sector.
- Greater collaboration is needed with key players in the industry and other national or interstate capacity building programs.

5 CONCLUSION

Clearwater is currently using the results and outcomes from this research to align existing and develop new capacity building activities, and ensure their effectiveness is thoroughly monitored. The program will focus on effective partnerships to ensure reach and collaboration efforts are strengthened and an integrated approach is pursued where interstate capacity buidling programs, research institutions and other stakeholders pool resources together and complement each other's skills and strengths.

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